

Application No. 10/573,262  
Reply to Office Action of March 5, 2008

Docket No.: 4600-0119PUS1

**AMENDMENTS TO THE DRAWINGS**

The attached are replacement sheets of drawings for the application.

Attachments:      Nine (9) Replacement sheets of Drawings

**REMARKS**

This Amendment is in response to the Non-Final Office Action mailed on March 05, 2008, for the present application, which has been reviewed. The present amended claims 5-6, 14, and 19 considered together with the following remarks, the arguments below and request for reconsideration, are believed sufficient to place the application into condition for allowance. No new matter has been added to the application. Applicants express appreciation for the thoughtful examination by the Examiner. Support for the amendment of claim 5 can be found in the original claims and paragraph [0013] of the specification. Support for the amendment of claim 14 can be found in the specification in paragraphs [0001] and [0016]. Support for the amendment of claim 19 and new claim 20 can be found in the specification in paragraph [0013].

The present invention is a directed to a novel polypeptide encoding a molecular marker for the vascular endothelial cells in ontogenesis, and a biomarker for angiogenesis at the time of tumor and regeneration of various organs, proliferation, differentiation and preservation of function of the cell in various organs, aging, and dysfunction.

**ELECTIONS/RESTRICTIONS**

The present action makes final the previous restriction requirement and withdraws claims 1-4, 7-13, and 15-18 as being a patentably distinct from claims 5, 6, 14, and 19 and/or require serious burden to search and examine those claims. In order to further the prosecution of this application and without acquiescing to the Examiner's withdrawal of the claims while reserving the right to prosecute the original claims in the future, Applicants have withdrawn claims 1-4, 7-13, and 15-18. Applicant preserves the right of petition from this requirement for restriction under 37 C.F.R. §1.144.

**Objections To Disclosure**

**Drawings**

The Examiner has objected to the drawings for a number of informalities.

Applicants have amended paragraph [0021] “Brief Description of the Drawing” section.

The amended section now discloses amino acid sequences with accompanying sequence identifiers (*i.e.* SEQ ID NO:).

Amended labeling of Figures 3A1, 3A2, 8A, 8B, 9A, 9B, 9C, 9D, 10A and 10B complies with 37 C.F.R. 1.84.

Applicants have provided substitute Figures 4B, 4C, 6, and 8 for Examination.

**Abstract**

The Examiner has objected to the Abstract of the Disclosure.

A substitute Abstract of the Disclosure is provided complying with MPEP 608.01(b).

**Specification**

The Examiner has objected to the recitation of an embedded hyperlink in the specification.

The browser-executable code on page 3, lines 14-15 has been deleted as required by MPEP 608.01 (section VII).

The Examiner has objected to the use of trademarks through the specification.

The use of trademarks in the specification have been capitalized and accompanied by the generic terminology.

**Title**

The Examiner has objected to the title as being non-descriptive.

The title of this invention has been amended to recite “A Plexin family-like polypeptide, DNA encoding the same and uses thereof”.

**Claims**

The Examiner has objected to the claim 5 for encompassing non-elected inventions.

In response to the Restriction requirement, claim 5 has been amended, limiting the scope to elected SEQ ID NO.18.

The Examiner has objected to the claims 6 and 14 for depending from a withdrawn claim.

Claims 6 and 14 have been amended and do not currently depend from any withdrawn claims.

The Examiner has objected to the claim 19 as being a substantial duplicate of claim 5.

Claim 19 has been amended to further limit the invention to an angiogenesis inhibitor comprised of a pharmaceutically acceptable salt.

Reconsideration and withdrawal of all objections is respectfully requested.

**Rejection Under 35 U.S.C. § 101**

The Examiner has rejected claim 5 as directed to non-statutory subject matter.

Claim 5 has been amended to recite an “isolated polypeptide...” directed to statutory subject matter.

Reconsideration and withdrawal of this rejection under 35 U.S.C. § 101 is respectfully requested.

**Rejection Under 35 U.S.C. § 112**

Claims 5-6, 14, and 19 are rejected under 35 U.S.C. § 112, first paragraph, as failing to meet the written description requirements.

Although Applicants do not agree that the claims fail to comply with the written description requirements, to expedite prosecution, claims 5-6, 14, and 19 have been amended to further limit the scope polypeptides comprising the amino acid sequences of SEQ ID NO. 18 and encoded by SEQ ID NO: 19. The amendment of claims 5-6, 14, and 19 to a single disclosed amino acid sequence, which is described in the specification to clearly convey to one skilled in the art, at the time the application was filed, establishes the requirement under 35 U.S.C. § 112, first paragraph that Applicants had possession of the claimed invention.

Reconsideration and withdrawal of this rejection under 35 U.S.C. § 112, first paragraph is respectfully requested.

Claims 5, 6, 14, and 19 are rejected under 35 U.S.C. § 112, second paragraph as indefinite. The Examiner believes that claims 5 and 19 are indefinite for reciting “represented by”. The Examiner believes that claim 5 is indefinite for reciting “substantially the same”. The Examiner believes that claims 5 and 19 are indefinite for reciting “biological activity substantially equivalent”. The Examiner believes that claim 14 is indefinite for reciting “a kit”, because a kit must contain two or more elements. The Examiner believes that claim 6 is indefinite for depending from an indefinite claim.

Although Applicants do not agree that the claims do not meet the written description requirements, to expedite prosecution, claims 5-6, 14, and 19 have been amended to obviate the Examiner's rejections.

Reconsideration and withdrawal of this rejection under 35 U.S.C. § 112, second paragraph is respectfully requested.

**Rejections Under 35 U.S.C. § 102**

The Examiner rejects claims 5, 14, and 19 under 35 U.S.C. § 102(b) as being anticipated by van der Zwaag *et al.* Developmental Dynamics 225:336-343.

In response to this rejection, claim 5 has been amended to recite the isolated polypeptide comprising the amino acid sequence of the polypeptide SEQ ID NO:18. Claim 14 has been amended to recite a vascular proliferation and differentiation control factor polypeptide binding kit comprising the polypeptide according to claim 5 and a control compound based on a protein-protein interaction detection system or an agonist, or an antagonist, or an in vivo ligand detection system. Claim 19 has been amended to recite a composition comprising the polypeptide of claim 5 or claim 6 and a pharmaceutically acceptable carrier. The prior art cited does not teach or make obvious the amino acid sequence as recited in the claims.

The Examiner rejects claims 5, 14, and 19 under 35 U.S.C. § 102(a) as being anticipated by Duke-Cohan *et al.*

In response to this rejection, claims 5, 14, and 19 have been amended to obviate this rejection as described above.

Reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 is respectfully requested.

**Rejections Under 35 U.S.C. § 103**

The Examiner rejects claim 6 under 35 U.S.C. § 103(a) as being unpatentable over van der Zwaag *et al.* as applied to claims 5, 14, and 19, and further in view of Ausubel (*Protein Synthesis; Short Protocols in Molecular Biology*).

The Examiner also rejects claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Duke-Cohan *et al.* as applied to claims 5, 14, and 19, and further in view of Ausubel (*Protein Synthesis; Short Protocols in Molecular Biology*).

Applicants contend that both rejections are made moot in view of the amendments to claims 5, 14, and 19 described above.

Reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

In view of the above Amendment, Applicants believe the pending application is in condition for allowance.

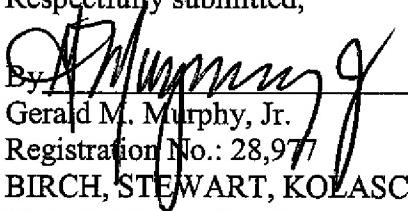
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eggerton A. Campbell, Reg. No. 51,307, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated:

JUN 30 2008

Respectfully submitted,

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